LARGE SYSTEMS REQUIREMENTS IN AUSTRIA

A CUSTOM STUDY

FOR

NATIONAL ADVANCED SYSTEMS (EUROPE) CORPORATION

BY
INPUT LIMITED

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APPENDIX : QUESTIONNAIRE

I. SAMPLE

A. ORGANISATIONS INTERVIEWED

o Eight organisations were interviewed and are listed with their classification in Exhibit AI-1.

- The distribution by CPU manufacturers was as follows:

.	IBM	45.45% (5)
.	BASF	27.27% (3)
.	NAS	18.18% (2)
.	Siemens	9.09% (1).

- Exhibit AI-2 shows the distribution of equipment.

o Three respondents had two vendors' processors - IBM with BASF in two cases and NAS in the other.

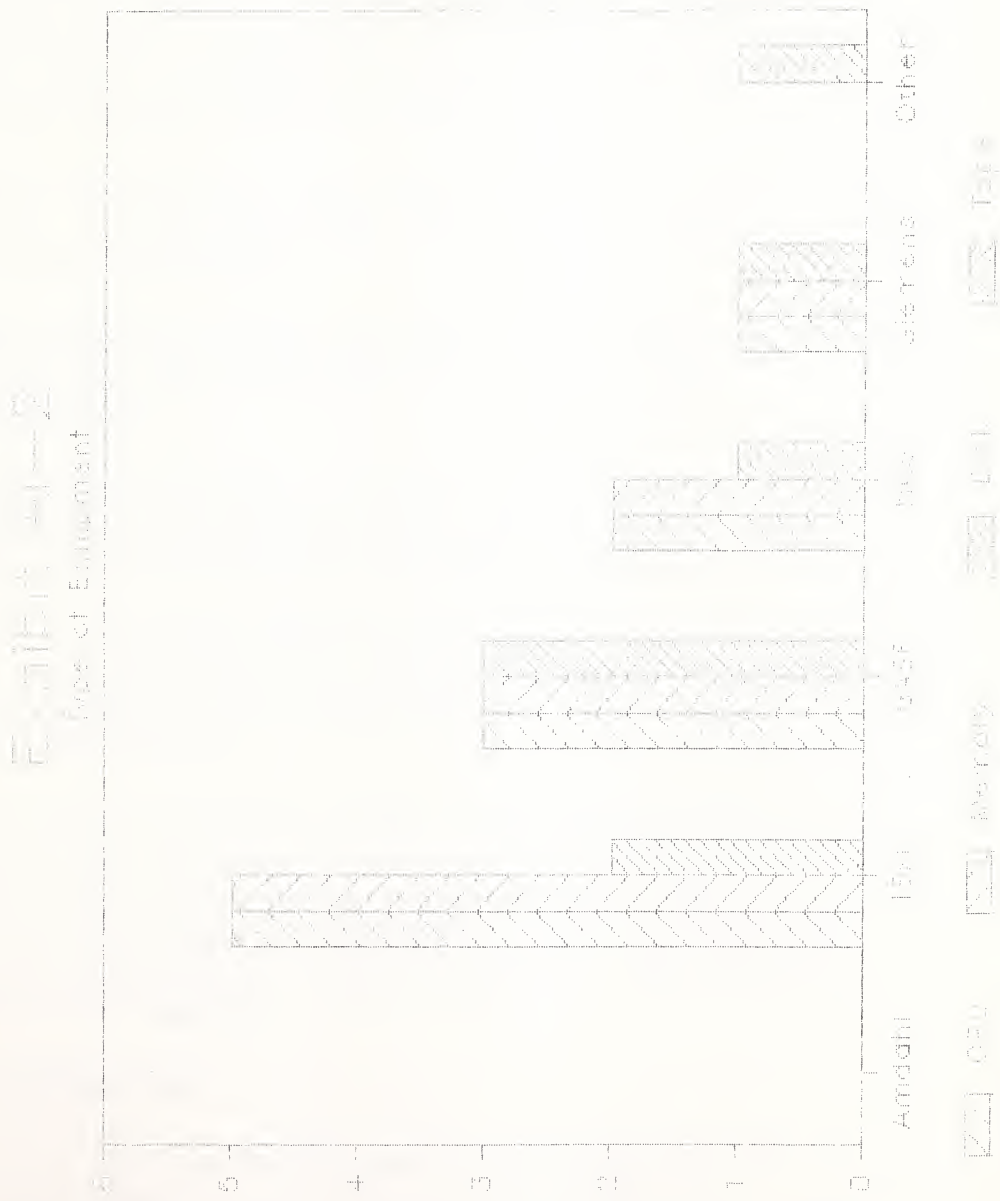
EXHIBIT AI-1

Organisations Interviewed

WAAGNER-BIRO A.G.	NAS
STEYR-DAIMLER-PUCH	IBM/BASF
OSTERREICHISCHE AEG TELEFUNKEN	BASF
GENOSSENSCHAFTS RECHENZENTRUM	IBM/NAS
ZENTRALSPARKASSE & KOMMERZIALBANK	IBM
RAIFFEISEN-RECHZENTRUM	SIEMENS
OSTERRICHISCHE BROWN BOVERI	IBM/BASF
AMT DER OBEROSTERREICHISCHEN LANDASREGIERUNG	IBM

Analysis of Sample by Category

FINANCIAL	1
MANUFACTURING	2
SERVICE	4
GOVT/UTILITY	1


Other
Mexico
Taiwan
Malaysia
Thailand
Australia
0
5
10
15
20

II. EXECUTIVE SUMMARY

A. KEY CONCLUSIONS

- Although mainly loyal to their current supplier, most users will consider an alternative proposal. There was some conflict of motivation, with two users aiming to have two vendors' equipment on-site, while two others were firmly against a mixed environment.

- NAS's flexibility was particularly mentioned as a plus point. On the product side, only IBM's prices were specifically criticised.

- NAS product performance was rated highly. IBM, on the other hand, were badly rated for price and price/performance.

- In the area of support - software maintenance, systems consultancy and hardware support, NAS rated below target, but still performed better than IBM and BASF.

- As far as tangible company requirements are concerned NAS is rated below IBM in all areas except post-sales effort, and rated particularly badly for product range, company size and location.

- The market's perception of NAS is extremely variable, being good for product reliability,, product performance and product range. On the company factors of image and marketing strength, the perception is poor. Feelings are neutral about product range and personnel. NAS prices are also badly regarded.

B. RECOMMENDATIONS

- In the absence of any one specific weak competitor NAS should concentrate its efforts on overcoming its weaknesses, both real and perceived, and targetting on the weaknesses of its competitors.

- The most significant area where NAS falls below user expectation is in support. In all three support activities, hardware support, software maintenance and system consultancy, there is room for improvement.

III. STUDY FINDINGS

A. LOYALTY

1. LOYALTY FACTORS

- Loyalty factors and rationale are shown in Exhibits AIII-1 and AIII-2. Siemens (5.0) and NAS (4.0) inspire the highest loyalty among their users. A loyalty factor of around 4 means that although essentially loyal to their existing vendors, users will always consider proposals from other vendors.

- The most common reason given for loyalty is company policy. There were two conntrasting views among the other reasons given. On the one hand two users said they deliberately set out to have two stronng vendors on site, whereas on the other hand, two users said that they were against a mixed environment.

- Other reasons given for loyalty include:

 - Dealing with a forward-looking vendor.
 - The users good experience with the vendor.

- Exhibits AIII-3 and AIII-4 show whether the loyalty is primarily towards the vendor's company or the product.

 - A small majority (5 out of 9) of respondents give equal importance to both the company and the product.

 - The remainder (4 out of 9) are more concerned about the product, and regard their loyalty as 75% to the product and only 25% to the company.

- There are several reasons for the split. Those giving equal importance to the company gave the following reasons;

 - Good service and support
 - Good service and good quality products
 - The vendor's expertise and good software
 - Experience

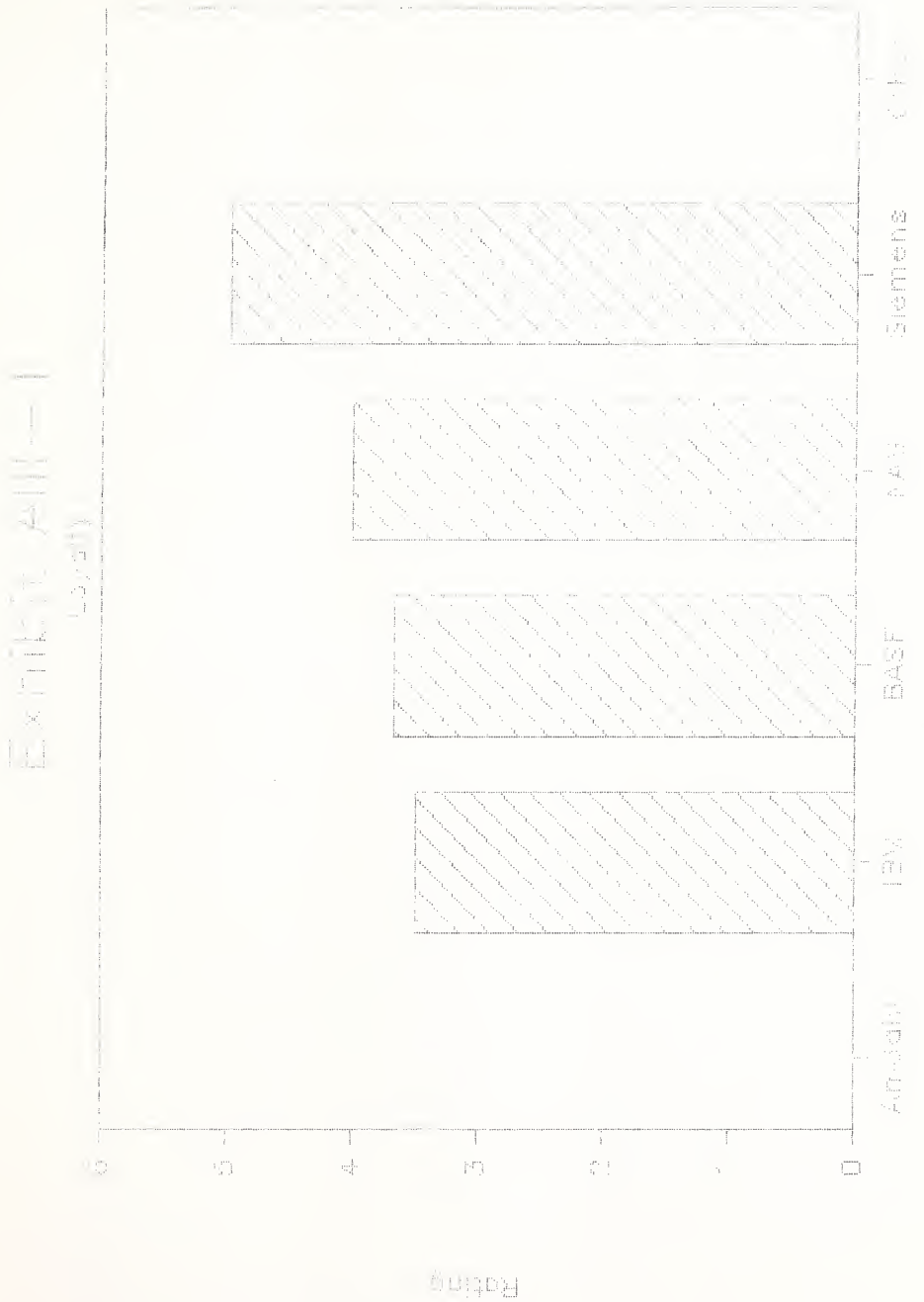
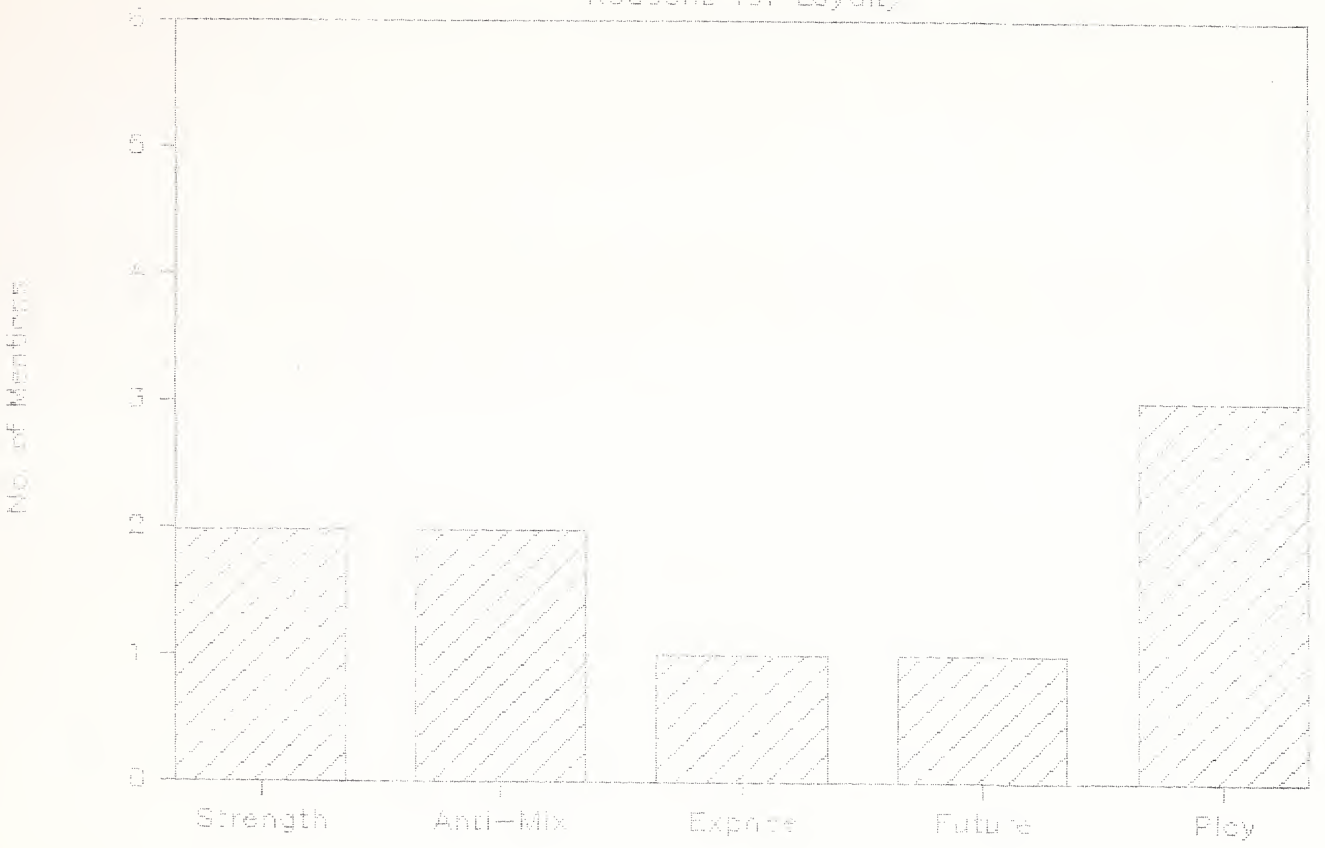
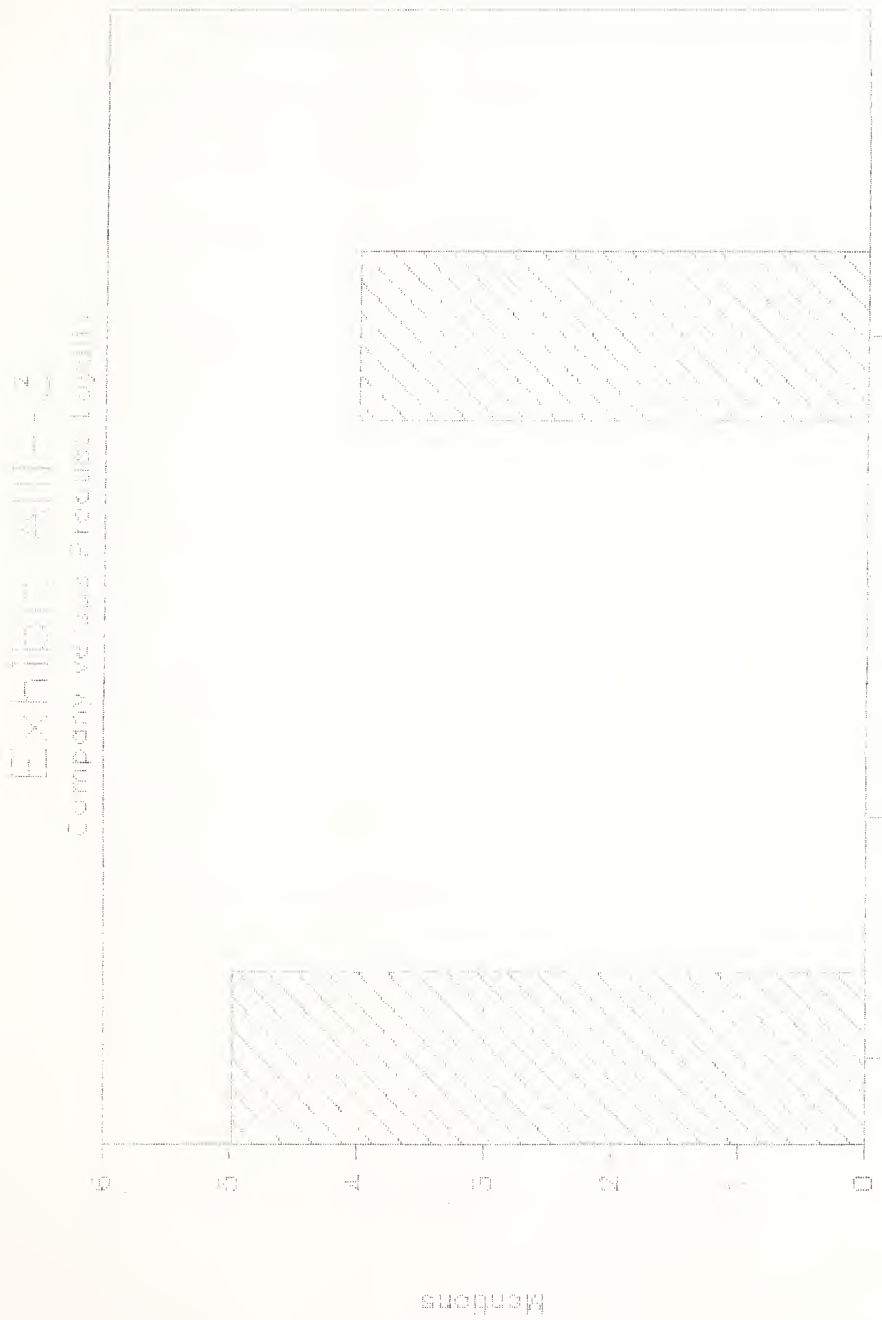
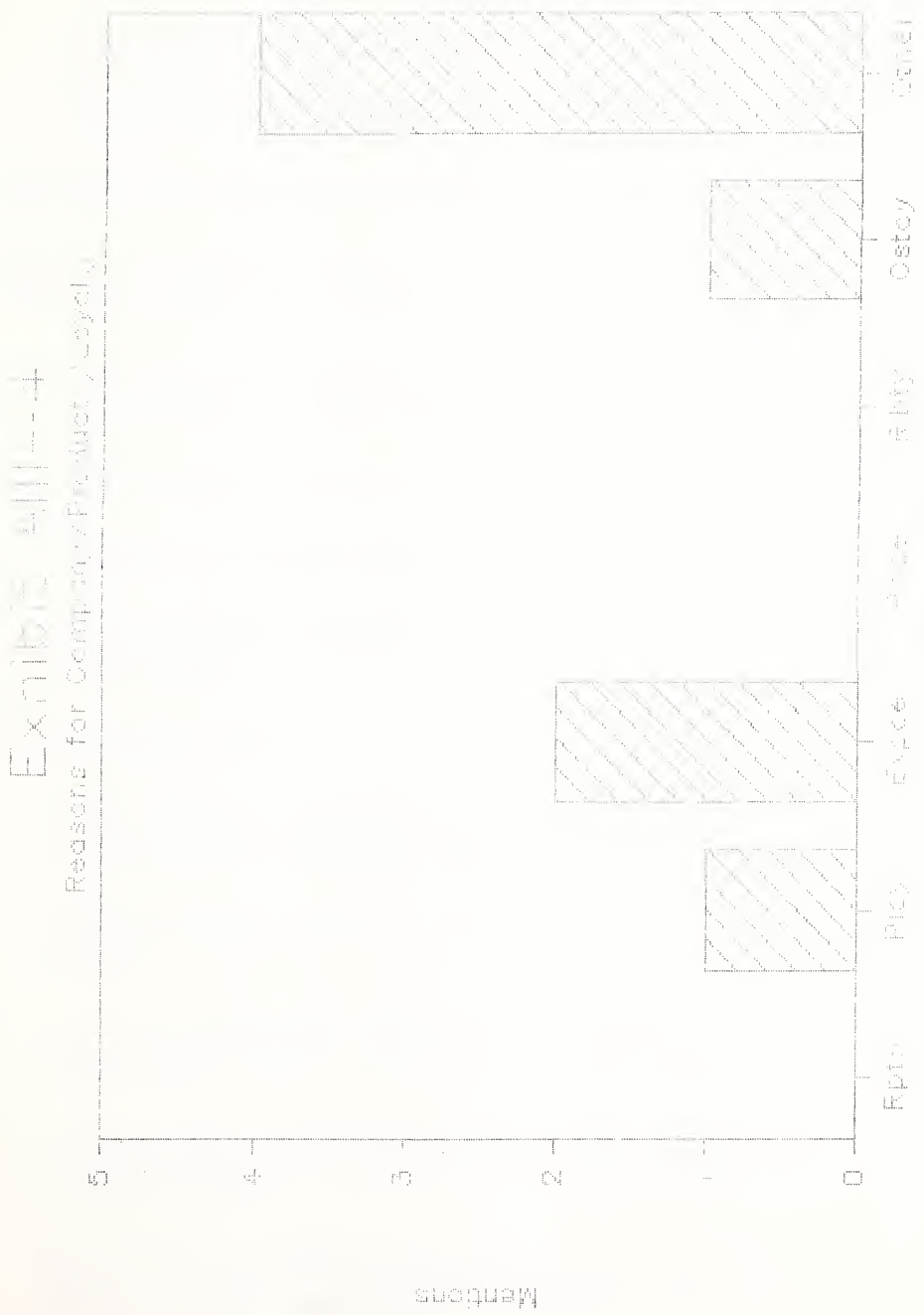

Rating
0
1
2
3
4
5
6
Siemens
BASF
IBM

Exhibit AIII-2

Reasons for Loyalty




Exhibit AIII-2
Company versus Pioneer Lumber
Millions
0
5
10
15
20
25
50-60
75-29
100-0
25-75
0-100
Company / Pioneer


Reasons for Committing Property Crime
Need
Force
Habit
Other
Mentions
0
1
2
3
4
5

- Those regarding their loyalty as primarily to the product give different reasons:

 - Independence from IBM
 - Minimising risk
 - Superior product quality

2. PLEASURES AND IRRITANTS WITH VENDORS AND PRODUCTS

- Exhibits AIII-5 to AIII-8 summarise users' particular feelings towards their suppliers and products.

 - IBM's strength and reliability were highlighted as plus points, but their inflexibility was criticised.

 - BASF's reliability and flexibility were praised.

 - Siemen's low-priced software was specially mentioned.

 - Both respondents with NAS equipment praised NAS's flexibility.

- On the product side:

 - IBM's product reliability and performance were singled out for specific favourable comment.

 - BASF was rated well for reliability, quality and price.

 - Both NAS respondents highlighted reliability in particular.

 - Siemens received favourable mention for reliability and performance.

 - The product irritants mentioned were all for IBM, with cost being especially criticised.





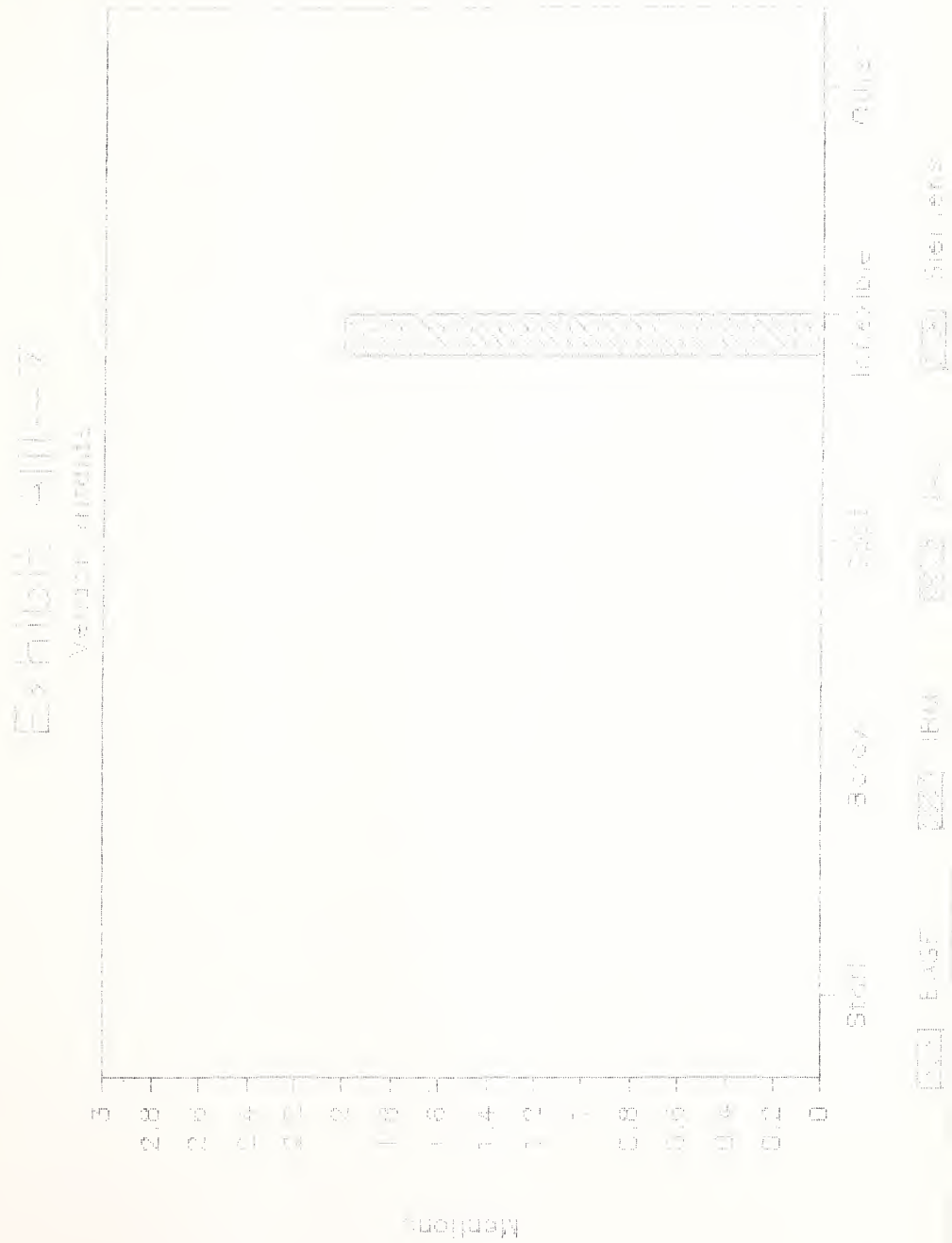


Exhibit XIII-8
Percentage Increase
Millions
4.5
4
3.5
3
2.5
2
1.5
1
0.5
0
None
Envtl
Perf
Save
Coal
Ribty
Other
Base
Envtl (GM)
Perf (GM)
Save (GM)
Coal (GM)
Ribty (GM)
Other (GM)

3. BUSINESS RELATIONSHIPS

o Exhibit AIII-9 demonstrates that most users have enjoyed a long relationship with their supplier, averaging 99 months.

B. PURCHASING TRENDS AND INFLUENCES

1. TANGIBLE PRODUCT REQUIREMENTS

o Exhibits AIII-10 to AIII-13 compare the relative importance of buying parameters and current vendors' performance against this 'target'.

o In order of average importance, the key parameters are:

- Compatibility	(9.1)
- Upgradeability	(9.1)
- Reliability	(9.1)
- Availability	(9.1)
- Quality	(9.1)
- Environment	(8.6)
- Price	(8.5)
- Price/Performance	(8.4)
- Performance	(8.2)
- Consulting Asst.	(7.5)
- Floor Space	(5.3)

o NAS rated above IBM, but below BASF for the top five factors of compatibility, upgradeability, reliability, availability and quality. The rating was however marginally below target in these areas.

o IBM rated especially badly for price and price/performance.

o NAS rated particularly highly for performance.

EXHIBIT AIII-9

Average length of time

- Business relationship between vendor and customer

 99 months

- Time taken to make a decision on purchase

 4.0 months

Exhibit A(II-10
Degree of Importance/Performance
1=Low/Poor 10=High/Excellent
0
1
2
3
4
5
6
7
8
9
10
Target
BASF
IBM
NAS
Siemens
Price
Performance
Tangible Product Requirements
Price/Performance

Exhibit XIII-1
Degree of Importance/Problems
10
9
8
7
6
5
4
3
2
1
0
Target
BASF
IBM
IAS
Siemens
Tangible Product for Interbank
Unprocessable
Competitive
1=Low/Poor 10=High/Excellent

Exhibit VII - 12
Degree of Importance/Performance
1=Low/Poor 10=High/Excellent
0
1
2
3
4
5
6
7
8
9
10
Target
BASF
IBM
NAS
Siemens
Availability
Tangible Product Requirements
Quality
Environment

Target
BASF
Standard

2. TANGIBLE SUPPORT REQUIREMENTS

o Exhibit AIII-14 illustrates the importance of support requirements, and compares vendor performance against this target.

- In order of importance the three factors are:-

. Software maintenance	(8.4)
. Systems consultancy	(7.7)
. Hardware support	(7.6)

o NAS and Siemens rated below target for all three criteria.

o NAS was rated above IBM and BASF for hardware support and software maintenance, and equal for systems consultancy.

3. TANGIBLE COMPANY REQUIREMENTS

o Exhibits AIII-15 to AIII-17 compare the relative importance to users of certain vendor company factors. In order of importance these are:

. Post Sales Effort	(8.9)
. Service Organisation	(8.4)
. Stability	(8.3)
. Financial Condition	(8.1)
. Size of Company	(7.5)
. Location	(7.4)
. Product Range	(7.0)
. Pre-Sales Effort	(6.8)

o NAS rated above all other suppliers, but still below target in the most important criterion of post-sales effort. In all other criteria, NAS fell below IBM, and in most criteria below Siemens and BASF also.

o In the areas of product range, company size and location, NAS rated particularly badly.

Exhibit VII — 14
Degree of Importance/Performance
1=Low/Poor 10=High/Excellent
0
1
2
3
4
5
6
7
8
9
10
Target
BASF
ISM
MAS
Siemens
Variable Speed
Variable Output Performance
2 Wire Mode
Dynamics Corp

Target
BASF
IBM
Siemens
1=Low/Poor 10=High/Excellent

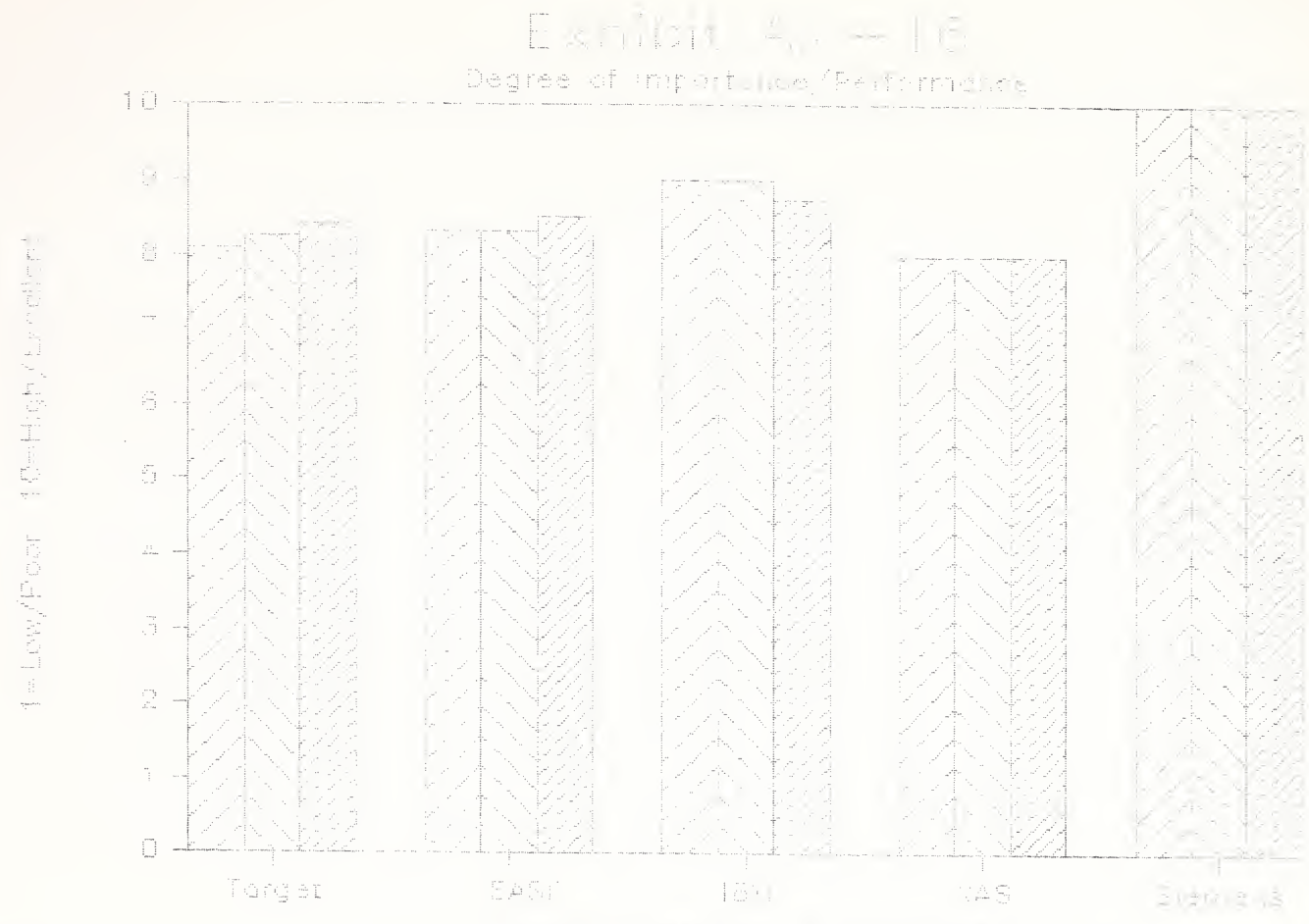

Exhibit A-16
Degree of Importance/Performance
10
9
8
7
6
5
4
3
2
1
0
Target
SASI
IBM
UAS
Synnexis
Tangible Component Requirements
Financial Concern
Stability
Service Orie

Exhibit AIII — 17
Degree of Importance/Performance
1=LOW/Poor 10=High/Excellent
0
1
2
3
4
5
6
7
8
9
10
Nagel
BASF
IBM
NAS
Siemens
Pre-Sales Effort
Trouble Compromise Requirements
Post-Sales Effort

4. INTANGIBLE PRODUCT REQUIREMENTS

- o The intangible factors of the effects of equipment on employees and customers is not highly rated (6.5 for each).

- o Few respondents commented on this area and no data about NAS performance was obtained.

5. INTANGIBLE COMPANY REQUIREMENTS

- o Exhibits AIII-19 to AIII-22 illustrate the relative importance of intangible company attributes and compare them to user ratings.

- o In order of importance, the factors include:

- Support personnel	(8.6)
- Systems support personnel	(8.6)
- Credibility	(8.5)
- Executive Relations	(8.4)
- Salesmen	(8.4)
- Communications	(8.4)
- Reputation	(8.4)
- Image	(8.3)
- Visibility	(8.3)
- Least amount of bother	(8.1)
- Entertainment	(6.9)

- o NAS's performance is very close to target for all factors, falling marginally below only in support personnel and systems support personnel.

- o Compared to IBM the only area where NAS falls behind is in advertising. In most othher factors, NAS significantly outperforms IBM and BASF.

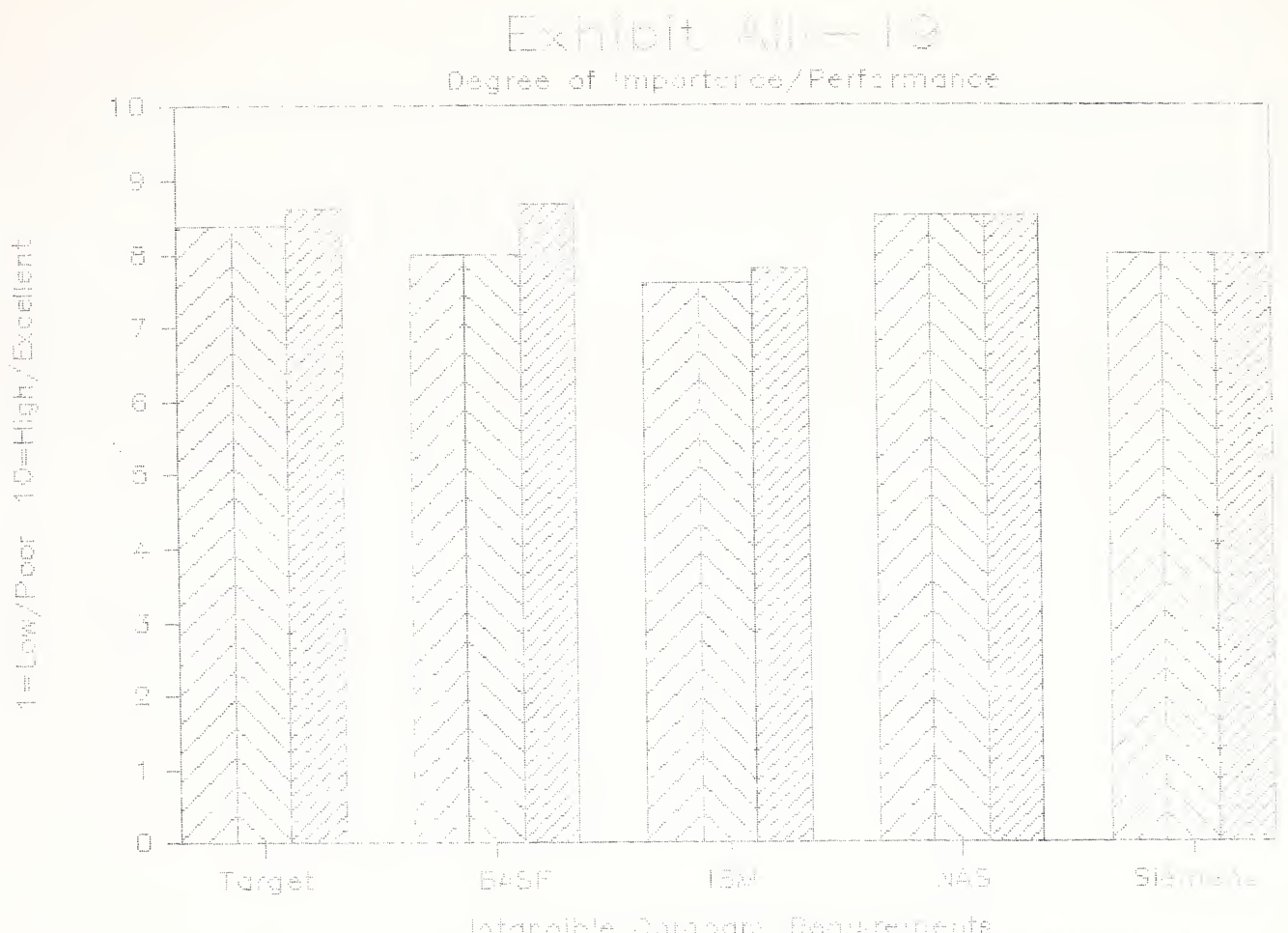

Exhibit XII—19
Degree of Importance/Performance
1=Low/Poor 10=High/Excellent
10
9
8
7
6
5
4
3
2
1
0
Target
BASF
IBM
NAS
Siemens
Intangible Company Requirements
Execs/Reins
Salesmen
Support Personnel

Exhibit AM--20

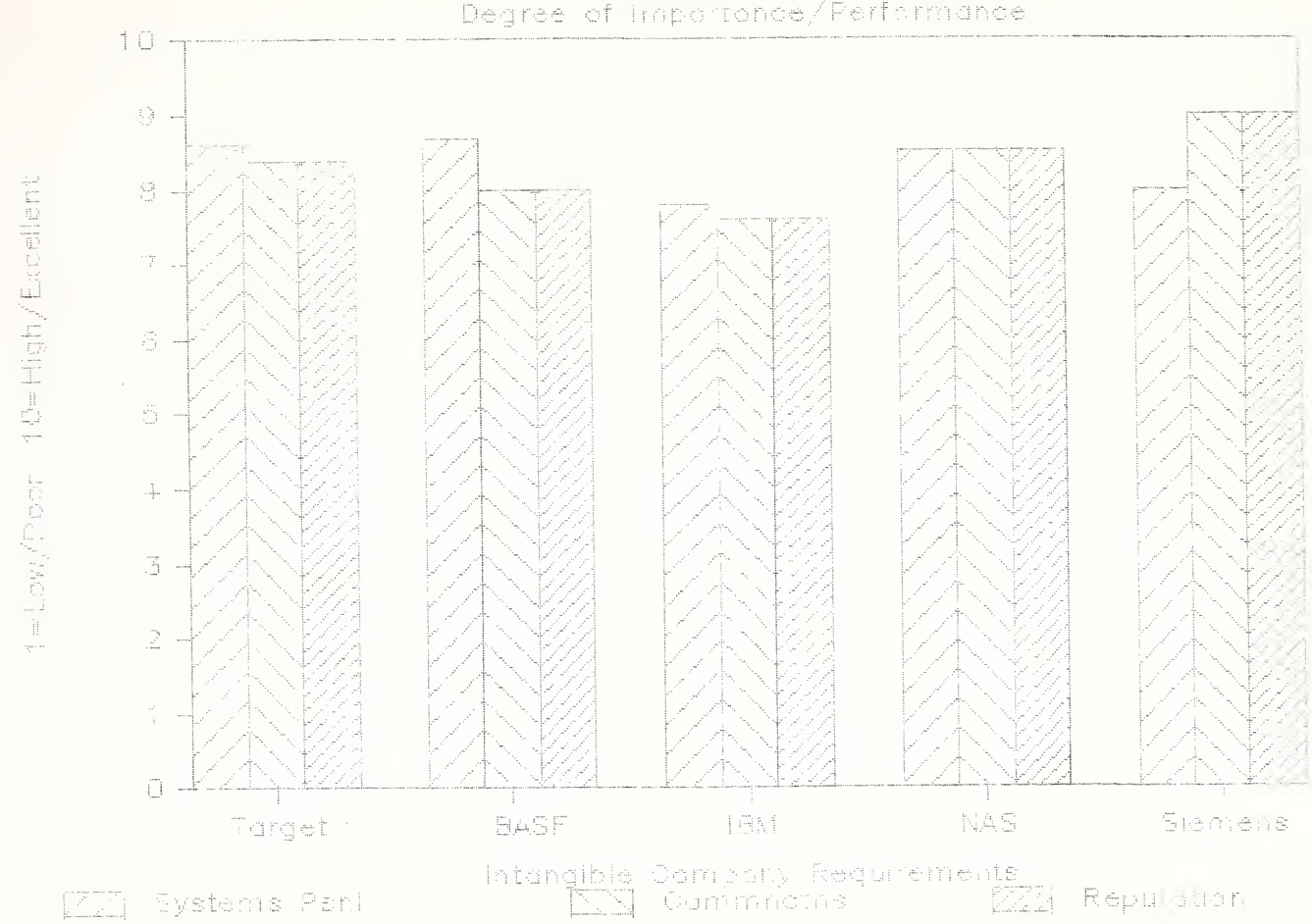
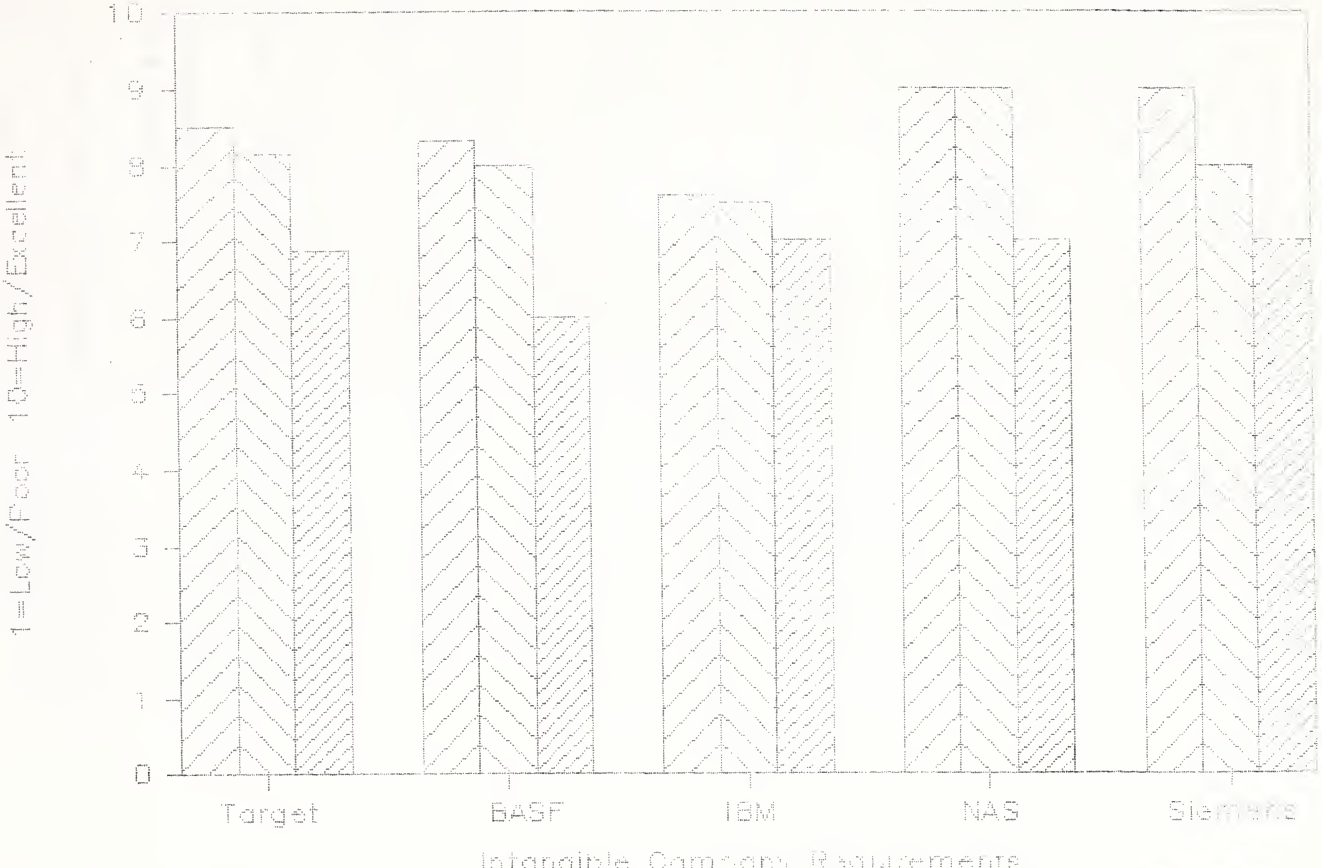


Exhibit A1-2B
Degree of Implementation Performance
1=Low/Poor 10=High/Excellent
0
1
2
3
4
5
6
7
8
9
10
Target
BASP
IM
IM3
Alternate
Intangible Community Requirements
Visibility
Private Investment

Exhibit Alu—32

Degree of Importance/Performance



6. THE ROLE OF THE DATA PROCESSING EQUIPMENT BUYER/INFLUENCER

o There was little consistency in the respondents' perception of their role. Those mentioned include;

- Upgrading and tuning the system
- Stabilisation
- Increased integration
- TP consolidation
- Maintaining system availability
- Improved economies
- Sound growth

(Exhibit AIII-23)

7. EXTERNAL ISSUES AND FUTURE REQUIREMENTS

o External issues were not regarded as important.

o Future requirements include: better software, security, SNA consulting, software integration, and TP networking.

C. ACQUISITION PROCESS

1. PERSONNEL INVOLVED IN DATA PROCESSING EQUIPMENT PROCUREMENT

o Exhibits AIII-26 to AIII-27 summarise the numbers and type of personnel involved in the procurement process.

- On average 4.4 people are involved in the decision-making process.

- The Data Processing Manager is the most frequently involved, with Directors and the Board also important. Others involved include the Financial Controller and Operations staff.

o The need for new equipment is usually identified by the DP Manager, sometimes assisted by a systems or operations team. In half the cases, a formal project plan is important.

o The DP Manager is always responsible for recommending equipment, and the final decision is taken by either a Director or the Board.

2. CONSULTANTS AND PURCHASING POLICIES

o Most respondents did not have a formal acquisition policy. One specified IBM compatibility, while another gave preference to Siemens. (Exhibit AIII-28).

o None of the respondents used consultants (Exhibit AIII-29).

D. MARKET CHARACTERISTICS

1. PROPENSITY TO CHANGE VENDORS

o Exhibit AIII-30 shows an equal number of respondents unwilling to change vendors as are willing to do so.

- The reasons given for those willing to consider changing vendors include:- a) cost and b) a change in vendor policy. One respondent would only consider buying peripherals from another vendor.

2. WHAT USERS SAY IT WOULD TAKE TO BE SOLD ON ANOTHER VENDOR

o Exhibit AIII-31 shows that the most important factors to be taken into consideration re:

- Improved price/performance
- Better price
- System compatibility
- Absence of risk
- Change in company policy or organisation
- The need for an additional CPU

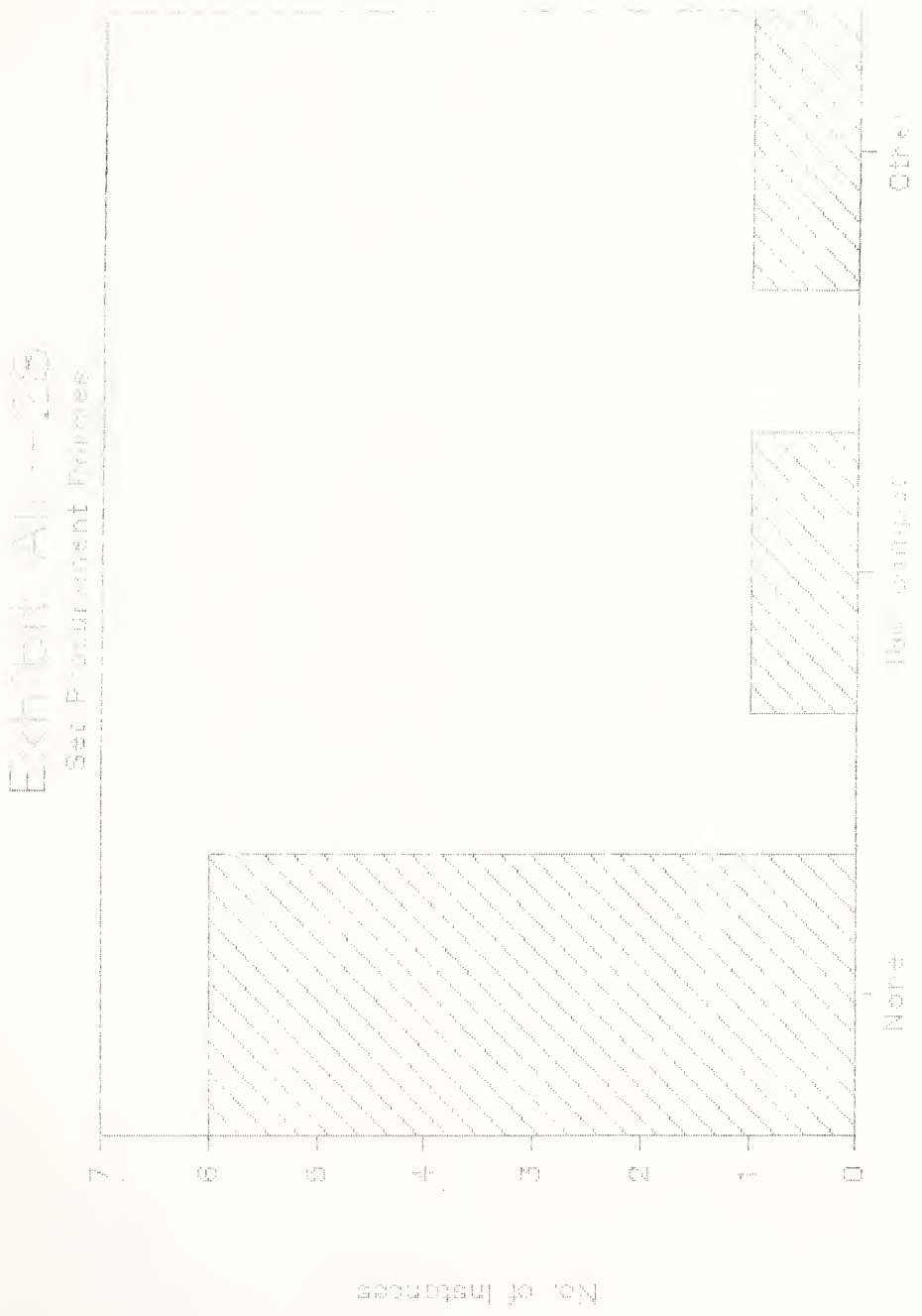
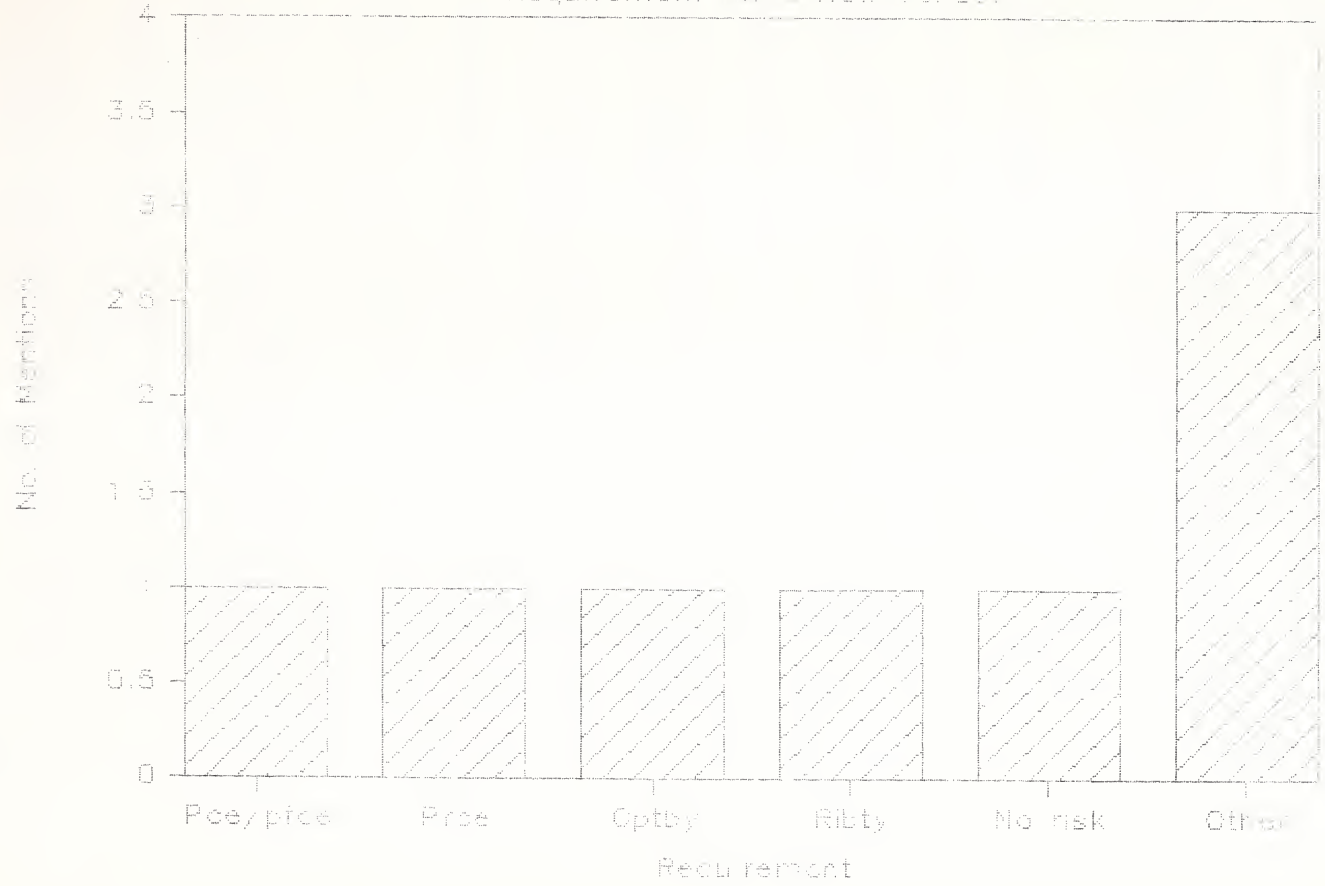

Exhibit A1 - 19
Set Environment Names
No. of Instances
0
1
2
3
4
5
6
7
None
Low Context
Other

Exhibit A-4—30
Propensity to Change Vendors
No. of Members
0
1
2
3
4
5
Total
Sited
Unwilling
Other
Cost
Other
Within

Exhibit A11—31

Requirement for a New Vendor



3. USERS' CONSIDERATION OF BUYING FROM PCMs AND LARGE SYSTEMS VENDORS

- o Exhibit AIII-32 shows that only 1 respondent would not consider buying from a PCM or other large system vendor.

- o Of those willing to do so, the reasons given included:- cost, compatibility, improved support, and the prospect of a long relationship with the vendor.

E. PERCEPTIONS OF VENDORS

1. PRODUCT RELIABILITY (Exhibit AIII-33)

- o NAS is well regarded, rating equal to IBM and ahead of the othher vendors.

2. PRICE (Exhibit AIII-34)

- o NAS performs badly here, being regarded as poorer than IBM, Siemens or BASF.

- o This adverse perception contrasts to the relatively good opinion about prices held by NAS users (Exhibit AIII-10).

3. PRODUCT PERFORMANCE (Exhibit AIII-35)

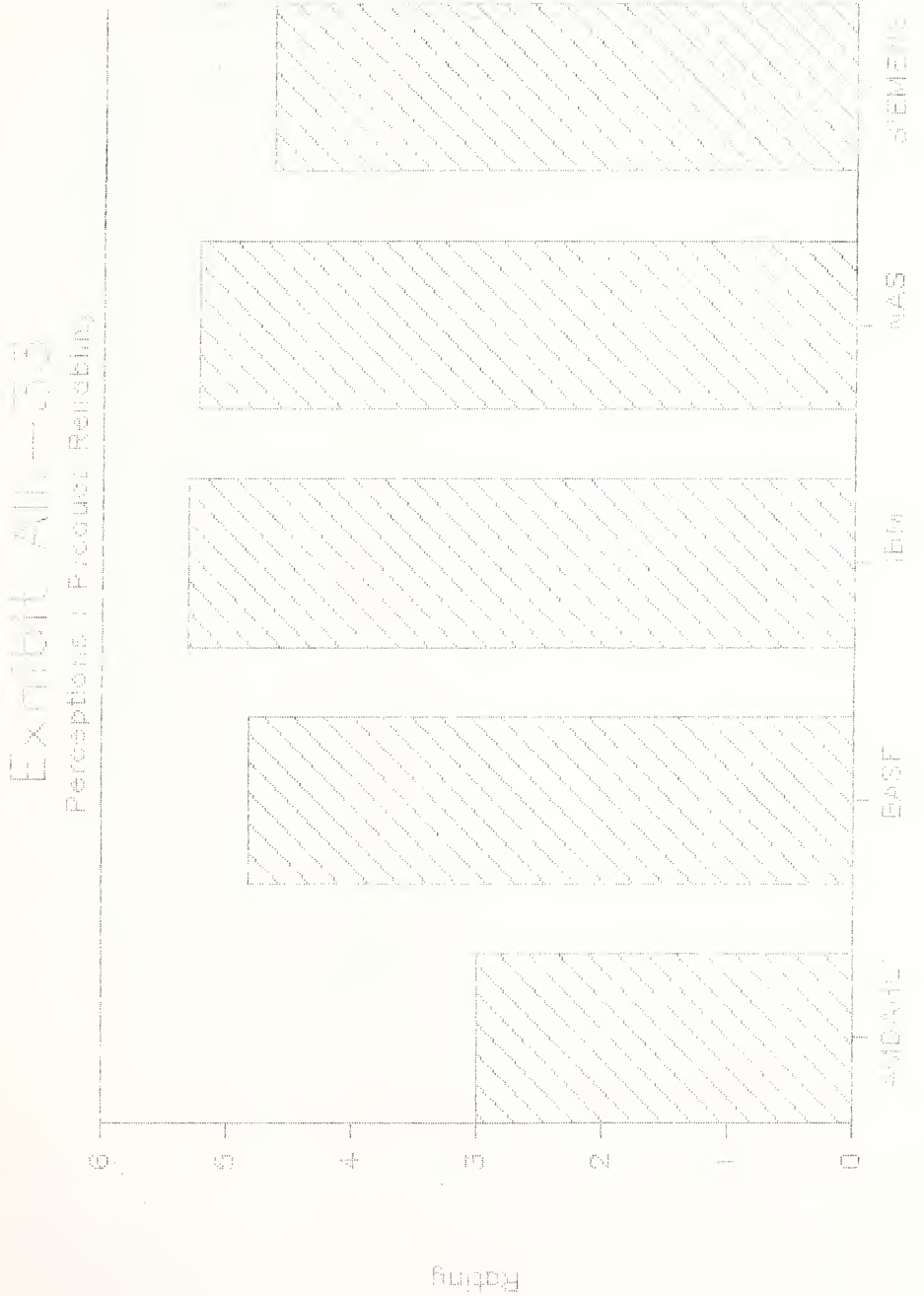
- o IBM is particularly well rated for performance (5.8 out of 6), with NAS ranked second.

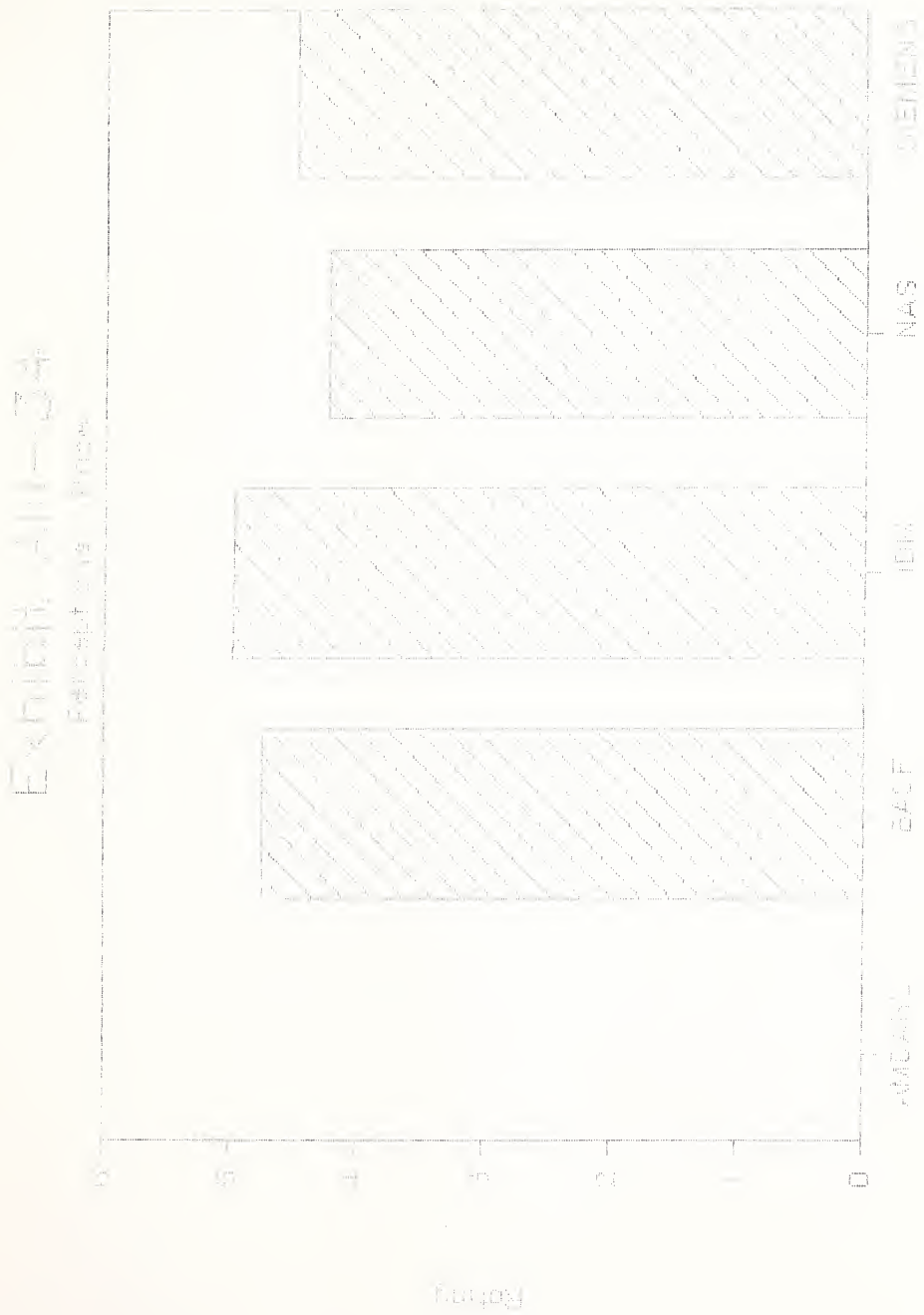
- o Among their existing users by contrast, IBM are fairly poorly regarded, whereas NAS are regarded as excellent (Exhibit AIII-10).

4. PRODUCT RANGE (Exhibit AIII-36)

- o Again NAS is well viewed, ranking only behind IBM and ahead of the other vendors.

Exhibit #11 - 1982
Canadian Buying Your Arabian Yearlings
No. of Inquiries
0
1
2
3
4
5
6
Year
Local
Trade
Export
Other
Total


Factor Alt-5a
Perception / Product Relationship
Factor
6
5
4
3
2
1
0
MIDWEST
EAST
SOUTH
WEST
GERMANY


SIEMENS
NAS
IBM
BASF
AMDAHL
0
Exhibit 4
Percentage Share

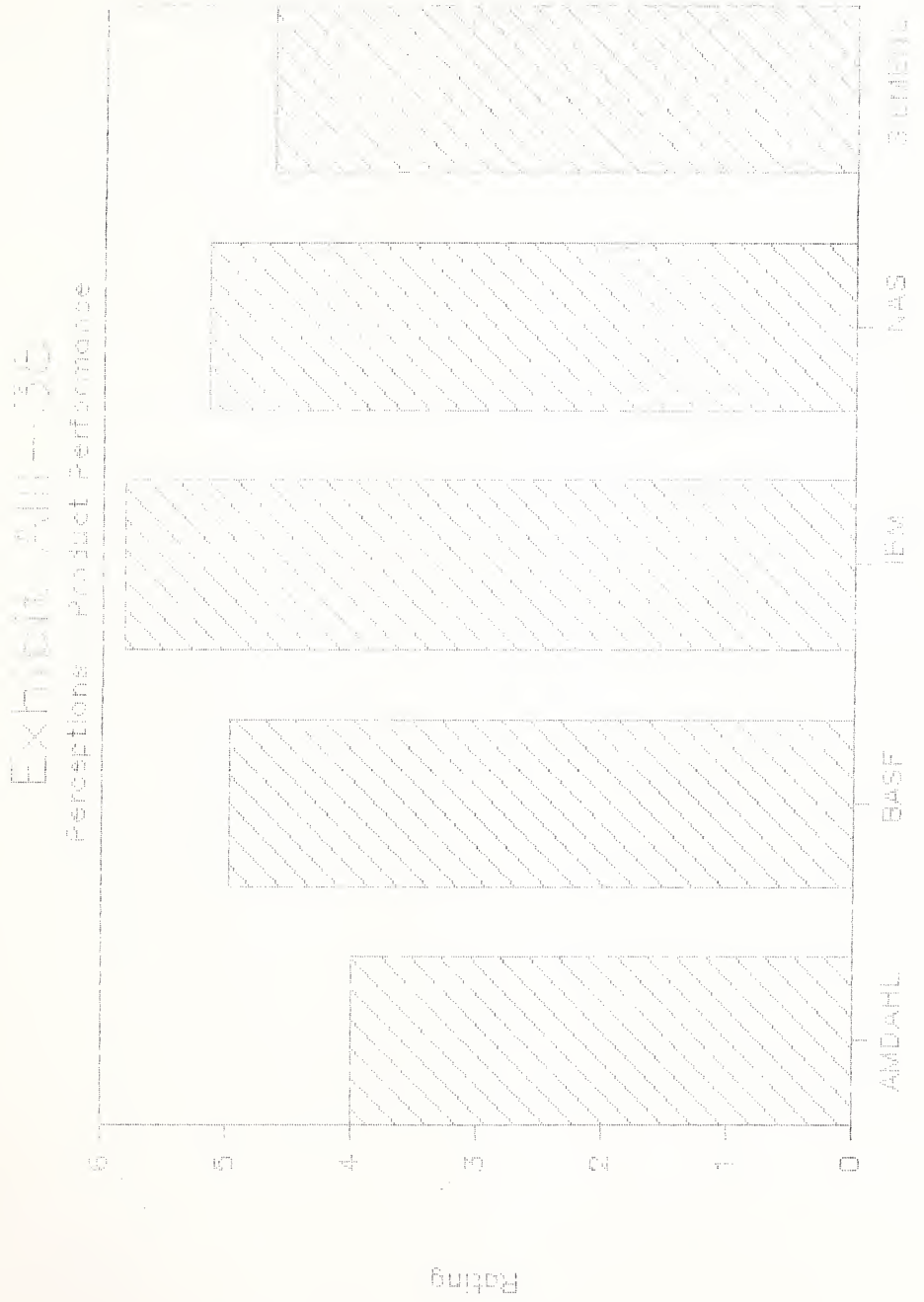

Perceptions - product performance
Rating
0
1
2
3
4
5
6
AMOCO
BASF
IEM
NAS
ELLEM

Exhibit AIII-36
Perceptions - Product Range
Rating
0
1
2
3
4
5
6
AMDAHL
BASF
IBM
NAS
SIEMENS

- NAS's own users, however, do not have a particularly favourable view of the product range, rating it below target, and better only than BASF (Exhibit AIII-15).

5. COMPANY IMAGE (Exhibit AIII-37)

- NAS's image is poor, trailing behind all the other vendors.

- NAS users have a more favourable view, rating the company better than all others except Siemens (Exhibit AIII-21)

6. MARKETING STRENGTH (Exhibit AIII-38)

- IBM is clearly seen as the strongest company followed by Siemens. NAS is rated ahead of Amdahl and equal with BASF.

7. PERSONNEL (Exhibit AIII-39)

- NAS personnel are less highly regarded than that of IBM, Siemens or BASF.

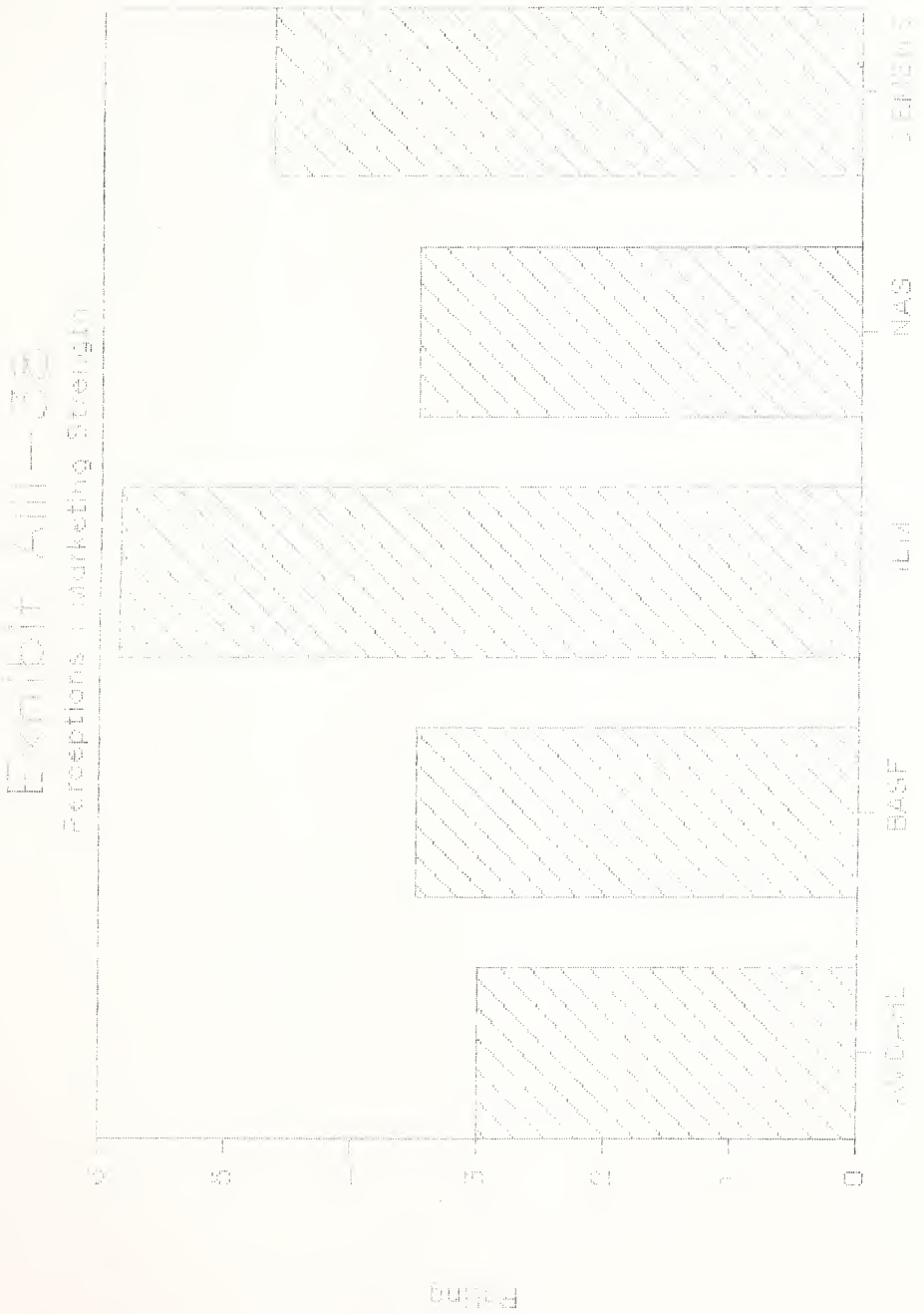
- NAS users do have a better impression of support personnel than eithe Siemens or IBM (Exhibit AIII-19 and AIII-20).

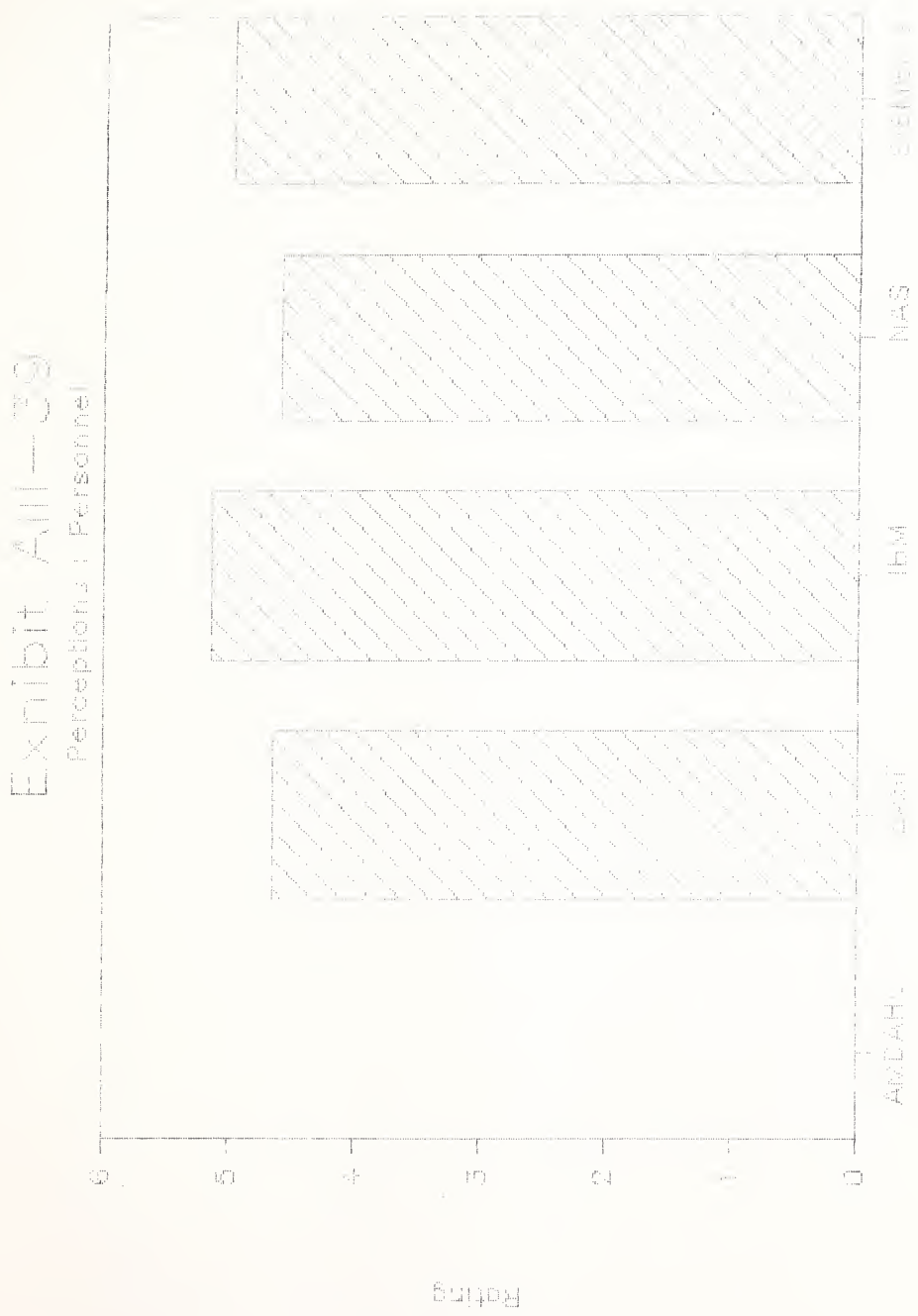
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.37	Perceptions - Image	50
.38	Perceptions - Marketing Strength	51
.39	Perceptions - Personnel	52

Exhibit AIII-37
Perceptions : Company Image
Rating
0
1
2
3
4
5
6
AMDAHL
BASF
IBM
NAS
SIEMENS


Exhibit VIII-3(2)
Perceptions - Marketing Strategy
Rating
5
4
3
2
1
0
AVCorp
BASF
ICI
NAS
ENEOS


Exhibit AIII-39
Perceptions: Personnel
Rating
0
1
2
3
4
5
6
ANLAHI
CHRI
IbM
NAS
Center